



CITY OF NEWPORT BEACH

BUILDING DEPARTMENT

3300 NEWPORT BLVD.
P.O.BOX 1768, NEWPORT BEACH, CA
(949) 644-3275

SOLAR – VOLTAIC PLAN CHECK

Project Description:

Project Address:

Plan Check No.:

Date Filed:

No. Stories:

Use:

Occupancy:

Const. Type:

Architect/Engineer:

Phone:

Owner:

Phone:

Submitted Valuation:

Checked by:

Phone: (949) 644-32

Permit Valuation:

☒ 1st Check

☐ 2nd Check

☐ 3rd Check

☐ 4th Check*

***NOTE: Do not resubmit after 3rd plan check. Call plan check engineer for an in-person recheck appointment.**

WARNING: PLAN CHECK EXPIRES 180 DAYS AFTER SUBMITTAL.

THIS PLAN CHECK EXPIRES ON: _____

Approval of plans and specifications does not permit violation of any section of the Building Code or other City ordinances or State law.

This plan check is according to 2007 California Building Code.

- Make all corrections listed below
- Resubmit originally checked plans and indicate the location of response on this sheet. **DO NOT** resubmit after the third check. Call plan check engineer and schedule in-person recheck.
- Return this sheet with corrected plans
- For checking status of plans: call **(949) 644-3288** during business hours, or may be verified 24 hours 7 days a week via the Internet at: www.newportbeachca.gov/building/ or interactive voice at **(949) 644-3255**
- For clarifications on corrections, you may call the Plan Check Engineer or schedule an appointment to see him/her.
- Codes used: 2007 CEC; 2007 CMC; 2007 CPC; Title 24-2008 California Energy Efficiency Standards for electrical and mechanical systems

1. Add note to plans: "All work to comply with 2007 California Building Code; 2007 California Electric Code [2005 NEC] – Article 690, all manufactures listings and installation instructions."
2. Provide [3] sets of plans, minimum 18"x 24"; attach all manufacture specification sheets, installation instructions and listings.

3. Plans are to be signed by State of California licensed contractor classification "A", "B", C-46, or C-10; provide signature and license number on each sheet.
4. Add note to plans: "D.C. array conductors are to remain outside of building prior to fuseable combiner box or fuseable D.C. disconnect means. City of Newport Beach Building Department policy (unfused conductors into the building) & Fire Department [guideline D.04] do not recognize 2007 C.E.C – Article 690.14 [C] [1] exception or Article 690.31[E]. A fuseable disconnect means or fuseable combiner box is required outside of building prior to D.C. array conductors entering the building or penetrating the roof surface. [Recommend routing and installing all D.C. array conductors outside of the building]."
5. In addition to fuseable D.C. disconnect means or fuseable combiner box prior to D.C. array conductors entering the building or penetrating the roof surface. City of Newport Beach Fire Department requires the D.C. conductors inside metallic conduit entering into the attic space be installed 18 inches below the roof surface along its entire length in the attic space; or provide disconnect means located on the roof with remote shut-off. This disconnect means to be remotely shut-off by visible ON / OFF switch device located within 5 feet of the buildings main electric service. This may be achieved with a [U.L. listed or equivalent] 600 volt DC rated relay/contacter. Contact Fire Department for any other additional requirements [949] 644-3106 [Recommend routing and installing all D.C. array conductors outside of the building].
6. Add note to plans: "Inspection required for roof connection mounting assemblies prior to installing solar module."
7. Provide D.C. array solar panel Voc and Isc ratings, show calculations per inspector/installer checklist [see attached] – Voc calculated @ $\times 1.13$ [Temp Corr.] // Isc calculated @ $\times 125\%$ [NEC – 690] $\times 125\%$ [UL 1703].
8. System exceeds inverter maximum useable D.C. input current shown on inverter specification sheet.
9. Provide complete inverter and solar module manufacturer specification sheet.
10. Show all conduit and conductor sizes, include derating of conductors.
11. Inverter integral AC/DC disconnects not approved unless disconnects are a separate component and the inverter can be removed for service or replacement without removing disconnect means, provide manufacture specification sheet and listing.
12. A.C. disconnect between inverter AC output and connection to utility to be a visible blade, lockable type disconnect listed for its use.
13. Distance between inverter and next downstream A.C. overcurrent protection device to be maximum 25 feet. A.C. overcurrent device is required prior to entering the building.
14. Provide minimum 3 feet working clearances in front of all solar – voltaic equipment and 3 feet working clearances at side yard setbacks.
15. Verify main electrical service overcurrent device and buss rating. For a dwelling unit the sum of the ampere ratings of the overcurrent devices shall not exceed 120 % or the rating of the busbar or conductor.
16. Show existing main electric service equipment and ground electrode system, conduit and conductor sizes.
17. Provide ground electrode system from inverter to existing main service ground electrode per C.E.C. Article 250.50 through 250.86.

18. Ground electrode conductor from inverter to ground electrode to be minimum protection of bare armor sheathed cable, # 8 awg. minimum.
19. Show all signage required per 2007 CEC- Article 690 and inspectors/installers checklist.
20. Add note to the plans: "Electric metallic tubing [E.M.T. conduit] not approved in exterior locations."
21. Add note to the plans: "D.C. array conductors are to be installed in galvanized rigid conduit from the solar array to the D.C. disconnect and Inverter.
22. Fire department review is required, comply with all Fire department requirements, and see Fire department Guideline D.04.
23. Building Department structural review is required for plan check approval; contact the building plan check engineer assigned to your project for requirements [949] 644-3275.
24. Plans are incomplete, additional corrections may follow.
- 25.
- 26.